

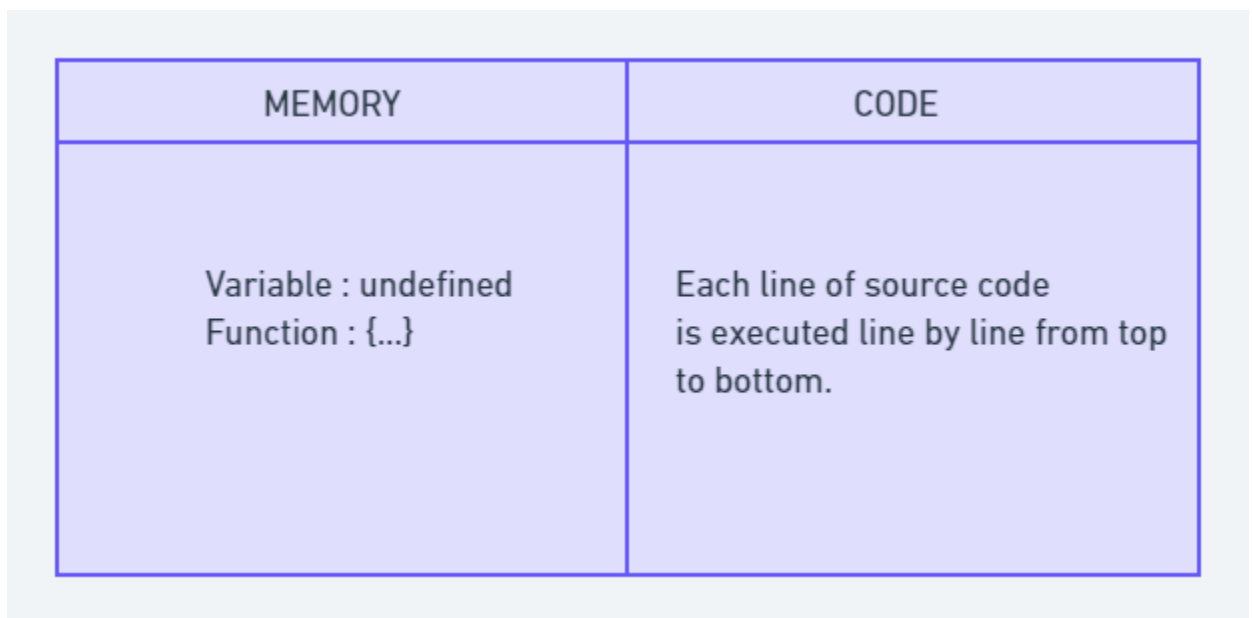
### 3. Explain what is execution context in detail with diagram

Ans:-

When the JavaScript engine scans a script file, it makes an environment called the Execution Context that handles the entire transformation and execution of the code. During the context runtime, the parser parses the source code and allocates memory for the variables and functions. The source code is generated and gets executed.

There are two phases of JavaScript execution context:

1. **Creation phase:-** In this phase, the JavaScript engine creates the execution context and sets up the script's environment. It determines the values of variables and functions and sets up the scope chain for the execution context.

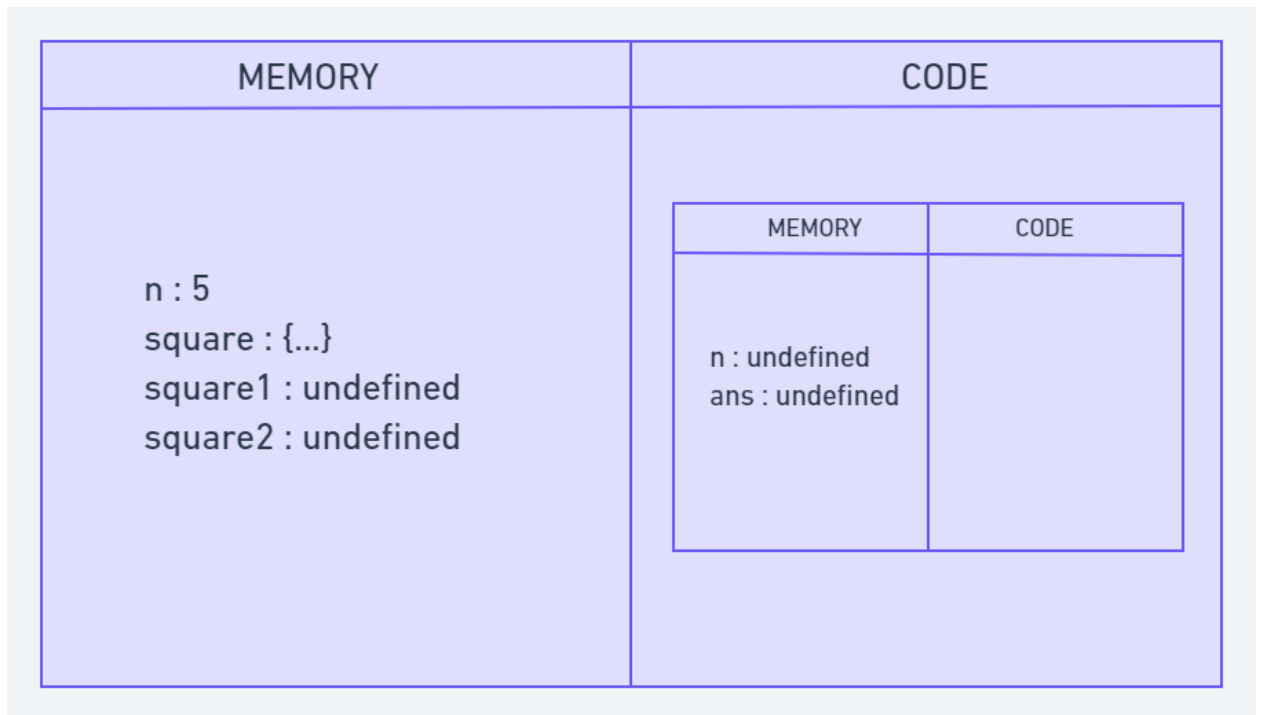


Execution Context

MEMORY	CODE
<pre>n : undefined square : {...} square1 : undefined square2 : undefined</pre>	

### Creation Phase in Execution Context

2. **Execution phase:-** In this phase, the JavaScript engine executes the code in the execution context. It processes any statements or expressions in the script and evaluates any function calls.



### Code Execution Phase

MEMORY	CODE
<pre>n : 5 square : {...} square1 : 25 square2 : 64</pre>	